July 24, 2013

Marlene H. Dortch
Secretary
Federal Communications Commission
455 12th St. SW
Washington DC 20554

RE: **EX PARTE** in Amending the Definition of Interconnected VoIP Service in
Section 9.3 of the Commission's Rules, GN Docket No. 11-117; Wireless E911
Location Accuracy Requirements, PS Docket No. 07-114; E911 Requirements
for IP-Enabled Service Providers, WC Docket No. 05-196

Dear Ms. Dortch:

Today, Brian Hart, Marc Linsner and myself met with FCC staff Henning Schulzrinne
David Siehl, Dana Zelman, and Timothy May, and on the phone with Nicole McGinnis
and Erika Olsen.   The purpose of the meeting was to update staff on industry efforts to
architect and implement indoor location solutions using Wi-Fi. Cisco used the attached
powerpoint.

During the course of the meeting, Cisco reviewed why indoor location is relevant to
business and likely use cases, citing numerous examples: asset tracking, analytics on
people flow, valuing floorspace, find the expert (retail), hospitality – personalized guest
engagement; use of unassigned workspace (which cube is empty today?); and turn by
turn navigation on a campus or in a hospital.   In addition we reviewed the indoor
location alliance's architecture, and discussed progress on various standards that will
enable the architecture.

Among the diverse standards in progress, Cisco highlighted the work of IEEE and
specifically the evolving IEEE 802.11mc and completed IEEE 802.11 k/u, which are
currently on track to ready for Wi-Fi Alliance certification in the 2015 timeframe. Cisco
stated that 802.11mc Fie Timing Measurement protocol over the 802.11ac (80MHz)
physical layer will be capable of producing 10 feet of accuracy on a horizontal X/Y axis
90% of the time although more accurate data is possible depending upon
implementation and the use of "angle of arrival" data. Retailers, in particular, are
interested in detailed granulation of location data so that they can track traffic through
specific aisles in their stores.

We stated that as a result of the implementation of these standards, the client can query the network for its own location for use in applications such as emergency services. However, the architecture that would allow the delivery of location data to a Public Safety Answering Point (PSAP) is still being studied by industry.

Sincerely,

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